**GROUND WATER DISCHARGE PERMIT - RENEWAL AND MODIFICATION**
**EXISTING DAIRY FACILITY with a LAND APPLICATION AREA**
**Bonestroo Dairy, LLC, DP-898**

## I. INTRODUCTION AND SUMMARY

The New Mexico Environment Department (NMED) issues this Discharge Permit Renewal and Modification (Discharge Permit), DP-898, to Gary Bonestroo (permittee) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978, §§ 74-6-1 through 74-6-17, and the New Mexico Water Quality Control Commission (WQCC) Regulations, 20.6.2 and 20.6.6 NMAC.

NMED's purpose in issuing this Discharge Permit is to control the discharge of water contaminants from Bonestroo Dairy, LLC (dairy facility) for the protection of ground water and those segments of surface water gaining from ground water inflow, for present and potential future use as domestic and agricultural water supply and other uses, and to protect public health.

The activities which produce the discharge, the location of the discharge, and the quantity, quality and flow characteristics of the discharge are briefly described as follows:

A maximum daily discharge volume of 43,000 gallons per day (gpd) of wastewater may be discharged from the production area. Wastewater flows from two milking parlors into three associated concrete sumps; two sumps in series and a synthetically lined overflow emergency impoundment are associated with Parlor 1 and one sump is associated with Parlor 2. Wastewater is pumped from the sumps through a solids screen separator into a synthetically lined solids settling impoundment which flows into a synthetically lined wastewater storage impoundment. Wastewater is land applied by center pivot irrigation to up to 240 acres of irrigated cropland under cultivation. The modification consists of a change from total evaporative disposal to land application on a 240-acre land application area. The discharge contains water contaminants or toxic pollutants which may be elevated above the standards of Section 20.6.2.3103 NMAC.

The dairy facility is located at 326-B New Mexico Highway 467, approximately 4.5 miles north of Portales in Sections 1, 2 and 12, T01S, R34E and Section 6, T01S, R35E, Roosevelt County. Ground water most likely to be affected is at a depth of approximately 60 feet and had a pre-discharge total dissolved solids concentration of approximately 470 milligrams per liter.

The original Discharge Permit was issued on March 19, 1993, and subsequently modified on May 21, 1996, renewed and modified on June 16, 1999, and on September 26, 2005. The application consists of the materials submitted by the permittee dated March 30, 2012, and materials contained in the administrative record associated with issuance of this Discharge Permit. The discharge shall be managed in accordance with all applicable requirements of the Dairy Rule (20.6.6 NMAC) and this Discharge Permit.

Issuance of this Discharge Permit does not relieve the permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

The following acronyms and abbreviations may be used in this Discharge Permit:

| Abbreviation | Explanation | | Abbreviation | Explanation |
|---|---|---|---|---|
| Cl | chloride | | $NO_3$-N | nitrate-nitrogen |
| gpd | gallons per day | | S | Sulfur |
| LADS | land application data sheet(s) | | $SO_4$ | Sulfate |
| mg/L | milligrams per liter | | TDS | total dissolved solids |
| NMAC | New Mexico Administrative Code | | TKN | total Kjeldahl nitrogen |
| NMED | New Mexico Environment Department | | WQA | New Mexico Water Quality Act |
| NMP | Nutrient management plan | | WQCC | Water Quality Control Commission |
| NMSA | New Mexico Statutes Annotated | | | |

## II. FINDINGS

In issuing this Discharge Permit, NMED finds:

1. The permittee is discharging from a facility that meets the definition of "dairy facility" and is subject to the Dairy Rule (20.6.6 NMAC). This dairy facility meets the definition of "existing dairy facility".

2. The permittee is discharging effluent or leachate from the dairy facility that may move directly or indirectly into ground water within the meaning of Section 20.6.2.3104 NMAC.

3. The permittee is discharging effluent or leachate from the dairy facility that may move into ground water of the State of New Mexico which has an existing concentration of 10,000 milligrams per liter or less of total dissolved solids within the meaning of Subsection A of 20.6.2.3101 NMAC.

4. The discharge from the dairy facility is not subject to any of the exemptions of Section 20.6.2.3105 NMAC.

5. Data collected from on-site monitoring wells document ground water contamination attributed to one or more sources at this dairy facility. Ground water quality standards for $NO_3$-N and TDS have been exceeded according to the criteria of Sections 20.6.2.3101 and 20.6.2.3103 NMAC.

6. The Discharge Permit for this facility last issued on September 26, 2005 (before the effective date of the Dairy Rule of December 31, 2011) required the wastewater

impoundment system to have the capacity to store the volume of wastewater discharged at the maximum daily discharge volume, for a minimum of 60 days, plus stormwater runoff and direct precipitation generated from the facility, while preserving two feet of freeboard.

7. The dairy facility was existing as of the effective date of the Dairy Rule (December 31, 2011) and does not measure the volume of wastewater discharged to wastewater impoundment(s) using a flow meter installed on the discharge line(s) from all wastewater sources to the wastewater impoundment(s). As of the effective date of this Discharge Permit, the dairy facility uses a supply meter(s) to estimate the volume of wastewater generated in the production area. The meter(s) measures the volume of all fresh water contributing to the wastewater discharged from the production area.

8. This Discharge Permit contains requirements associated with the following potential contaminant sources as identified in the application and the administrative record as of the effective date of this Discharge Permit:
   a) Wastewater Impoundments
      i. **Wastewater Settling Impoundment** - authorized for use by this Discharge Permit.
      ii. **Wastewater Storage Impoundment** - authorized for use by this Discharge Permit.
      iii. **Emergency Holding Impoundment** - authorized for use by this Discharge Permit.
      iv. **Former Wastewater Impoundment** - not authorized for use by this Discharge Permit nor was it authorized for use by the last Discharge Permit issued prior to the effective date of the Dairy Rule. This impoundment is subject to closure and post-closure ground water monitoring requirements.
   b) Stormwater Impoundments
      i. **Stormwater Runoff Impoundment 1** - authorized for use by this Discharge Permit.
      ii. **Stormwater Runoff Impoundment 2** - authorized for use by this Discharge Permit.
      iii. **Stormwater Runoff Impoundment 3** - authorized for use by this Discharge Permit.
      iv. **Stormwater Runoff Impoundment 4** - authorized for use by this Discharge Permit.
      v. **Stormwater Runoff Impoundment 5** - authorized for use by this Discharge Permit.
      vi. **Stormwater Runoff Impoundment 6** - authorized for use by this Discharge Permit.
   c) Fields within the Land Application Area
      i. **Land Application Field A** - authorized for use by this Discharge Permit.
      ii. **Land Application Field C** - authorized for use by this Discharge Permit.

## III. APPLICABLE RULES

Sections 20.6.2.3000 through 20.6.2.3114 NMAC and Part 20.6.6 NMAC (Dairy Rule) apply to discharges specific to dairy facilities and their operations.

## IV. DISCHARGE PERMIT REQUIREMENTS

The permittee is authorized to discharge water contaminants pursuant to this Discharge Permit which contains requirements authorized or specified by the Dairy Rule. The permittee shall comply with the Dairy Rule and this Discharge Permit, which are enforceable by NMED. The permittee is authorized to discharge water contaminants subject to the following requirements:

### AUTHORIZATION TO DISCHARGE

1. The permittee is authorized to discharge up to 43,000 gpd of wastewater from the production area. Wastewater flows from two milking parlors into three associated concrete sumps; two sumps in series and a synthetically lined overflow emergency impoundment are associated with Parlor 1 and one sump is associated with Parlor 2. Wastewater is pumped from the sumps through a solids screen separator into a synthetically lined solids settling impoundment which flows into a synthetically lined wastewater impoundment for storage. Wastewater is land applied by center pivot irrigation to up to 240 acres of irrigated cropland under cultivation.

2. The permittee is authorized to use the following impoundments for the following purposes in accordance with Subsection B of 20.6.6.20 NMAC.
   a) **Wastewater Settling Impoundment** – authorized to receive wastewater for solids settling prior to flowing into the storage impoundment. This impoundment exists as of the effective date of this Discharge Permit and is synthetically lined. This impoundment receives wastewater discharged from the solids screen separator and discharges to the Wastewater Storage Impoundment. This impoundment is located west of the solids screen separator. This impoundment was synthetically lined with 60-mil HDPE in 2001.
   b) **Wastewater Storage Impoundment** – authorized to receive wastewater for storage prior to land application. This impoundment exists as of the effective date of this Discharge Permit and is synthetically lined. This impoundment receives wastewater discharged from the Wastewater Settling Impoundment for storage prior to land application. This impoundment is located west of the Wastewater Settling Impoundment. This impoundment was synthetically lined with 50-mil HDPE in 2005.
   c) **Emergency Holding Impoundment**– authorized to receive wastewater for emergency storage shall the sump pump malfunction. This impoundment exists as of the effective date of this Discharge Permit and is synthetically lined. This

impoundment receives wastewater overflow from the second sump associated with Parlor 1 and discharges to the solids screen separator. This impoundment is located east of the second sump associated with Parlor 1.

d) **Stormwater Runoff Impoundment 1** – authorized to collect stormwater prior to transfer into the wastewater storage impoundment system. This impoundment exists as of the effective date of this Discharge Permit and is unlined. This impoundment is located northwest of the Parlor 2 corrals.

e) **Stormwater Runoff Impoundment 2** – authorized to collect stormwater prior to transfer into the wastewater storage impoundment system. This impoundment exists as of the effective date of this Discharge Permit and is unlined. This impoundment is located west of the Parlor 2 corrals.

f) **Stormwater Runoff Impoundment 3** – authorized to collect stormwater prior to transfer into the wastewater storage impoundment system. This impoundment exists as of the effective date of this Discharge Permit and is unlined. This impoundment is located southwest of the Parlor 2 corrals.

g) **Stormwater Runoff Impoundment 4** – authorized to collect stormwater prior to transfer into the wastewater storage impoundment system. This impoundment exists as of the effective date of this Discharge Permit and is unlined. This impoundment is located southwest of the calf pens.

h) **Stormwater Runoff Impoundment 5** – authorized to collect stormwater prior to transfer into the wastewater storage impoundment system. This impoundment exists as of the effective date of this Discharge Permit and is unlined. This impoundment is located southwest of the Parlor 1 corrals.

i) **Stormwater Runoff Impoundment 6** – authorized to collect stormwater prior to transfer into the wastewater storage impoundment system. This impoundment exists as of the effective date of this Discharge Permit and is unlined. This impoundment is located southeast of the Parlor 1 corrals.

3. The permittee is authorized to apply wastewater and stormwater to all fields within the land application area in accordance with Subsections B, C and I of 20.6.6.21 NMAC. The land application area consists of the following fields for a total land application area of 240 acres.

a) **Land Application Field A** – consists of 120 acres; applied by center pivot. This field was not authorized by the last Discharge Permit issued prior to the effective date of the Dairy Rule (December 31, 2011) to receive wastewater and/or stormwater and has received wastewater and/or stormwater as of the effective date of this Discharge Permit.

b) **Land Application Field C** – consists of 120 acres; applied by center pivot. This field was not authorized by the last Discharge Permit issued prior to the effective date of the Dairy Rule (December 31, 2011) to receive wastewater and/or stormwater and has received wastewater and/or stormwater as of the effective date of this Discharge Permit.

## APPLICATION REQUIREMENTS

4. The permittee shall have 90 days from the effective date of this Discharge Permit (**by DATE**) to submit all the necessary information to comply with Sections 20.6.6.10 through 20.6.6.12 NMAC.
   a) For the Emergency Holding Impoundment, provide the date of original construction, existing liner material, date of liner installation and storage capacity in accordance with Paragraph (2) of Subsection H of 20.6.6.12 NMAC.
   b) Pursuant to Subsection I of 20.6.6.12 NMAC, provide a field calibration report for each existing flow meter in accordance with Subsection M of 20.6.6.20 NMAC.
   c) Pursuant to Subsection K of 20.6.6.12 NMAC, identify locations for new monitoring wells to meet requirements of Subsection A and B of 20.6.6.23 NMAC.
   d) Pursuant to Subsection O of 20.6.6.12 NMAC, provide the following:
      1) Record drawings and final specifications for the Emergency Holding Impoundment and for its liner in accordance with 20.6.6.17 NMAC; **or**
      2) If record drawings and final specifications for the Emergency Holding Impoundment and for its liner does not exist, a survey of the Emergency Holding Impoundment and capacity calculations in accordance with Subsection C of 20.6.6.20 NMAC.

## ENGINEERING AND SURVEYING REQUIREMENTS

5. The permittee shall comply with the requirements of Section 20.6.6.17 NMAC and shall submit to NMED all information or documentation required by the applicable portions of Section 20.6.6.17 NMAC.

## OPERATIONAL REQUIREMENTS

6. The permittee shall comply with the requirements of Sections 20.6.6.20 and 20.6.6.21 NMAC, and shall submit to NMED all information or documentation required by the applicable portions of Sections 20.6.6.20 and 20.6.6.21 NMAC.

7. The permittee shall provide written notice to NMED regarding any changes to the presence of lactating cows and/or the status of wastewater discharges at the facility in accordance with Subsection A of 20.6.6.20 NMAC (summarized in the table below).

| Activity | Notification of Estimated Date | Verification of Actual Date |
|---|---|---|
| Removal of Lactating Cows | Not required | Within 30 days of removal |
| Reintroduction of Lactating Cows | Not required | Within 30 days of reintroduction |

| Activity | Notification of Estimated Date | Verification of Actual Date |
|---|---|---|
| Cessation of wastewater discharge | Not required | Within 30 days of cessation of discharge |
| Recommencement of Discharge | Minimum 30 days prior to recommencement | Within 30 days of recommencement |

8. The permittee is authorized and required to transfer stormwater collected in the unlined stormwater impoundment(s) to the wastewater impoundment(s) in accordance with Subsection I of 20.6.6.20 NMAC.

9. Within 90 days from the effective date of this Discharge Permit (**by DATE**), the permittee shall submit a field calibration report for each existing flow meter in accordance with Paragraph (3) of Subsection M of 20.6.6.20 NMAC to demonstrate that the existing flow meter(s) meets the requirements of Subsection M of 20.6.6.20 NMAC.

10. The permittee is authorized to use the following existing flow meter provided that the requirements of Subsection M of 20.6.6.20 NMAC have been met.
    a) **Land Application Meter** – located on the transfer line from the Wastewater Storage Impoundment to the land application area to measure the volume of wastewater discharged from Wastewater Storage Impoundment to each field within the land application area.

11. The permittee is authorized to use the following existing flow meters pursuant to the alternative requirements of Subsection N of 20.6.6.20 NMAC to measure the volume of all fresh water contributing to the wastewater discharged to the wastewater impoundment system provided that the requirements of Subsection M of 20.6.6.20 NMAC have been met.
    a) **Parlor 1 Supply Meter** – located on the supply line for the milking parlor to measure the volume of all fresh water contributing to the wastewater discharged to the wastewater impoundment system; providing an estimate of the volume of wastewater generated from Parlor 1.
    b) **Parlor 2 Supply Meter** – located on the supply line for the milking parlor to measure the volume of all fresh water contributing to the wastewater discharged to the wastewater impoundment system; providing an estimate of the volume of wastewater generated from Parlor 2.

12. The permittee is authorized, pursuant to Subsection S of 20.6.6.20 NMAC, to land apply manure solids and composted material to the land application area. Manure solids and composted material shall be applied in accordance with the Nutrient Management Plan (NMP) required by Subsection I of 20.6.6.21 NMAC.

13. The permittee is authorized to blend wastewater with fresh irrigation water for land application using any of the methods provided in Subsection D of 20.6.6.21 NMAC.

Fresh water may be added to a wastewater impoundment prior to land application in accordance with Subsection D of 20.6.6.21 NMAC.

14. The permittee shall remove crops from the following fields within the land application area using the following methods in accordance with Subsection I and J of 20.6.6.21 NMAC. Crops may be grazed prior to and between mechanical harvests, however, nitrogen removal credit shall not be taken for grazing activities unless a grazing plan is developed and submitted in accordance with Subsections I and J of 20.6.6.21 NMAC.
    a) **Land Application Field A** – crops shall be harvested mechanically.
    b) **Land Application Field C** – crops shall be harvested mechanically.

    The permittee shall submit an application for Discharge Permit Modification to NMED for any proposed changes to the method(s) of crop removal for any field within the land application area as required by Subsection K of 20.6.6.21 NMAC.

15. The permittee shall complete the following items and submit documentation to NMED as summarized in the following table:

| Item No. | Action Required and Submittal Due to NMED | Due Date | Citation |
|---|---|---|---|
| A. | **Scaled Map of Dairy Facility – Updates:**<br>Following completion of any additions or changes to the dairy facility which affect the items listed in Subsection U of 20.6.6.20 NMAC, the permittee shall update and resubmit the facility map. | **Within 90 days of any addition or change.** | 20.6.6.20.V NMAC |
| B. | **Nutrient Management Plan:**<br>Develop and submit annual updates to the NMP. | **Annually:** May 1 | 20.6.6.21.I NMAC |
| C. | **Backflow Prevention:**<br>i) Complete installation of backflow prevention methods or devices.<br>ii) Submit confirmation of installation. | **90 days of effective date**<br>**180 days of effective date** | 20.6.6.21.M NMAC |
| D. | **Backflow Prevention by Reduced Pressure Principle Backflow Prevention Assembly – Inspection and Maintenance:**<br>Submit copies of inspection and maintenance records and test results for each RP device, should the device be used to satisfy the requirements of Subsection M of 20.6.6.21 NMAC. | **Annually:** May 1 | 20.6.6.21.N NMAC |

## GROUND WATER MONITORING REQUIREMENTS

16. The permittee shall comply with the requirements of Section 20.6.6.23 NMAC and shall submit to NMED all information or documentation required by the applicable portions of Section 20.6.6.23 NMAC.

17. Monitoring wells shall be constructed and completed in accordance with Subsection D of 20.6.6.23 NMAC.

18. Monitoring wells shall be permanently identified in accordance with Subsection C of 20.6.6.23 NMAC.

19. Within 90 days from the effective date of this Discharge Permit (**by DATE**), the permittee shall identify locations for the new monitoring wells (listed in the table below) in accordance with Subsections A and B of 20.6.6.23 NMAC.

20. The permittee shall complete the following items and submit documentation to NMED as summarized in the following table:

| Item No. | Action Required and Submittal Due to NMED | Due Date | Citation |
|---|---|---|---|
| A. | **Ground Water Monitoring – Existing Wastewater Impoundments:**<br>Install the following monitoring wells within 75 feet hydrologically downgradient of the top inside edge of each existing wastewater impoundment:<br>i) **MW-7**, hydrologically downgradient of the Wastewater Settling Impoundment.<br>ii) **MW-8**, hydrologically downgradient of the Wastewater Storage Impoundment.<br>iii) **MW-9**, hydrologically downgradient of the Emergency Holding Impoundment.<br>iv) **MW-10**, hydrologically downgradient of the Former Wastewater Impoundment (to be closed). | **120 days of effective date** | 20.6.6.23.A(1) NMAC |
| B. | **Ground Water Monitoring – Existing Stormwater Impoundments:**<br>Install the following monitoring wells within 75 feet hydrologically downgradient of the top inside edge of each existing stormwater impoundment:<br>i) **MW-11**, hydrologically downgradient of Stormwater Runoff Impoundment 1.<br>ii) **MW-12**, hydrologically downgradient of Stormwater Runoff Impoundment 2.<br>iii) **MW-13**, hydrologically downgradient of Stormwater Runoff Impoundment 3.<br>iv) **MW-14**, hydrologically downgradient of Stormwater Runoff Impoundment 4. | **120 days of effective date** | 20.6.6.23.A(3) NMAC |

| Item No. | Action Required and Submittal Due to NMED | Due Date | Citation |
|---|---|---|---|
| | v) **MW-15**, hydrologically downgradient of Stormwater Runoff Impoundment 5.<br>vi) **MW-16**, hydrologically downgradient of Stormwater Runoff Impoundment 6. | | |
| C. | **Ground Water Monitoring –Land Application Area:**<br>Install the following monitoring wells within 50 feet hydrologically downgradient of the downgradient boundary of fields within the land application area:<br>i) **MW-17**, hydrologically downgradient of Land Application Field A.<br>ii) **MW-18**, hydrologically downgradient of Land Application Field C. | **120 days of effective date** | 20.6.6.23.A(4) (b) NMAC |
| D. | **Ground Water Monitoring – Upgradient:**<br>Install a monitoring well, **MW-19**, hydrologically upgradient of all contamination sources at the dairy facility. | **120 days of effective date** | 20.6.6.23.A(5) NMAC |
| E. | **Ground Water Sampling and Reporting – Routine:**<br>Collect and analyze ground water samples quarterly from all monitoring wells identified in this Discharge Permit. Sampling shall be performed and results submitted in accordance with Subsection F of 20.6.6.23 NMAC. | **Quarterly** | 20.6.6.23.G NMAC |
| F. | **Ground Water Sampling – New Monitoring Wells:**<br>Collect ground water samples from monitoring wells required to be installed *within 120 days of the effective date of the Discharge Permit*. Sampling shall be performed in accordance with Subsection F of 20.6.6.23 NMAC using the monitoring wells required to be installed in the following locations:<br>i) **MW-7**, hydrologically downgradient of the Wastewater Settling Impoundment.<br>ii) **MW-8**, hydrologically downgradient of the Wastewater Storage Impoundment.<br>iii) **MW-9**, hydrologically downgradient of the Emergency Holding Impoundment.<br>iv) **MW-10**, hydrologically downgradient of the Former Wastewater Impoundment.<br>v) **MW-11**, hydrologically downgradient of Stormwater Runoff Impoundment 1.<br>vi) **MW-12**, hydrologically downgradient of Stormwater Runoff Impoundment 2.<br>vii) **MW-13**, hydrologically downgradient of Stormwater Runoff Impoundment 3.<br>viii) **MW-14**, hydrologically downgradient of Stormwater Runoff Impoundment 4.<br>ix) **MW-15**, hydrologically downgradient of Stormwater Runoff Impoundment 5.<br>x) **MW-16**, hydrologically downgradient of Stormwater Runoff Impoundment 6. | **150 days of effective date** | 20.6.6.23.H NMAC |

| Item No. | Action Required and Submittal Due to NMED | Due Date | Citation |
|---|---|---|---|
| | xi) **MW-17**, hydrologically downgradient of Land Application Field A.<br>xii) **MW-18**, hydrologically downgradient of Land Application Field C.<br>xiii) **MW-19**, hydrologically upgradient of all contamination sources at the dairy facility. | | |
| G. | **Monitoring Well Survey and Ground Water Flow Determination:**<br>Survey monitoring wells required to be installed *within 120 days of the effective date of the Discharge Permit* to a USGS benchmark. | **150 days of effective date** | 20.6.6.23.I NMAC |
| H. | **Monitoring Well Completion Report:**<br>Submit a monitoring well completion report for monitoring wells required to be installed *within 120 days of the effective date of the Discharge Permit*. The report shall include information from all monitoring wells. | **180 days of effective date** | 20.6.6.23.J NMAC |
| I. | **Ground Water Elevation Contour Maps:**<br>Develop and submit ground water elevation contour maps on a quarterly basis using data collected from all monitoring wells used for ground water monitoring at the dairy facility. | **Quarterly** | 20.6.6.23.L NMAC |

## MONITORING REQUIREMENTS

21. The permittee shall comply with the requirements of Sections 20.6.6.24 and 20.6.6.25 NMAC, and shall submit to NMED all information or documentation required by the applicable portions of Sections 20.6.6.24 and 20.6.6.25 NMAC.

22. The permittee shall submit monitoring reports to NMED on a quarterly schedule that contain monitoring data and information collected pursuant to the Dairy Rule and submitted in accordance with Subsection A of 20.6.6.24 NMAC.

    Quarterly monitoring reports shall be submitted according to the following schedule:
    - January 1 through March 31 (first quarter) – report due by **May 1**
    - April 1 through June 30 (second quarter) – report due by **August 1**
    - July 1 through September 30 (third quarter) – report due by **November 1**
    - October 1 through December 31 (fourth quarter) – report due by **February 1**

23. The permittee shall perform the following monitoring and submit to NMED the required documentation in monitoring reports as summarized in the following table:

| Item No. | Action Required and Submittal Due to NMED | Due Date | Citation |
|---|---|---|---|
| A. | **Wastewater Volume Estimation and Reporting:**<br>Using a flow meter(s) installed on the fresh water supply line(s), measure the volume of all sources contributing to the wastewater discharged to the impoundment(s) authorized to contain wastewater. Submit the meter readings (without adjustments or deductions in accordance with Subsection N of 20.6.6.20 NMAC). | **Quarterly** | 20.6.6.24.C NMAC |
| B. | **Stormwater Sampling and Reporting:**<br>Collect and analyze stormwater samples on a quarterly basis from each stormwater impoundment and submit results. | **Quarterly** | 20.6.6.24.D NMAC |
| C. | **Flow Meter Field Calibration:**<br>Perform flow meter field calibrations annually and submit a flow meter field calibration report. | **Annually:** May 1 | 20.6.6.24.E NMAC |
| D. | **Volume of Wastewater and Wastewater/Stormwater Land Applied – Measurement and Reporting:**<br>Measure the volume of all wastewater discharges to each field within the land application area using a flow meter(s) and submit the information. | **Quarterly** | 20.6.6.25.A NMAC |
| E. | **Wastewater to be Land Applied – Sampling and Reporting:**<br>The permittee shall collect a representative wastewater sample (consisting of eight subsamples) from each wastewater impoundment. Analyze each representative wastewater sample on a quarterly basis and submit results. | **Quarterly** | 20.6.6.25.C NMAC |
| F. | **Manure Solids – Nitrogen Content:**<br>Should a permittee choose to use actual nitrogen content values of on-site manure solids for the purpose of applying to the land application area, the permittee shall collect and analyze samples annually, and submit results. | **Quarterly** | 20.6.6.25.D NMAC |
| G. | **Irrigation Water – Sampling, Volume Applied and Reporting:**<br>Collect and analyze fresh irrigation water samples on an annual basis from each irrigation well associated with the land application area. Estimate the annual volume of irrigation water applied to each field from each well. Submit estimated volumes and analytical results. | **Annually:** May 1 | 20.6.6.25.E NMAC |
| H. | **Fertilizer Application Reporting:**<br>Maintain and submit a log of all additional fertilizer applied to each field within the land application area. | **Quarterly** | 20.6.6.25.F NMAC |
| I. | **Land Application Data Sheets:**<br>Complete and submit land application data sheets (LADS) for each field within the land application area. | **Quarterly** | 20.6.6.25.G NMAC |

| Item No. | Action Required and Submittal Due to NMED | Due Date | Citation |
|---|---|---|---|
| J. | **Crop Yield Documentation:**<br>Submit crop yield documentation and plant and harvest dates of each crop grown. | **Quarterly** | 20.6.6.25.H NMAC |
| K. | **Nitrogen Concentration of Harvested Crop:**<br>Determine the percent total nitrogen and dry matter of each harvested crop and submit results. | **Quarterly** | 20.6.6.25.I NMAC |
| L. | **Nitrogen Removal Summary of Harvested Crop:**<br>Develop and submit a nitrogen removal summary for each crop grown on each field within the land application area. | **Quarterly** | 20.6.6.25.J NMAC |
| M. | **Soil Sampling – Initial Event in a Discharge Permit Term:**<br>Collect and analyze initial soil samples from each field in the land application area for the first soil sampling event during the first year following the effective date of this Discharge Permit. Submit the results. | **May 1, 2014** | 20.6.6.25.K NMAC |
| N. | **Soil Sampling – Routine:**<br>Collect and analyze routine soil samples annually from each field in the land application area beginning the year following the initial sampling event. Submit the results. | **Annually:** May 1 | 20.6.6.25.L NMAC |

## CONTINGENCY REQUIREMENTS

24. The permittee shall comply with the requirements of Section 20.6.6.27 NMAC and shall submit to NMED all information or documentation required by the applicable portions of Section 20.6.6.27 NMAC.

## CLOSURE REQUIREMENTS

25. The permittee shall comply with the requirements of Section 20.6.6.30 NMAC and shall submit to NMED all information or documentation required by the applicable portions of Section 20.6.6.30 NMAC.

26. The following wells previously used for monitoring under the previous Discharge Permit, shall only be abandoned by the permittee upon written notification by certified mail from NMED. Upon such notification, the wells shall be abandoned in accordance with Subsection C of 20.6.6.30 NMAC. The permittee is not required to perform routine ground water sampling from these wells for this Discharge Permit, but may be required to do so pursuant to the Abatement Plan. Additionally, NMED may collect ground water samples from the well(s) pursuant to Subsection D of 20.6.2.3107 NMAC.

a) **MW-1**, located north of the wastewater impoundment system.
b) **MW-2**, located northeast of the parlor 1 sump and Emergency Holding Impoundment.
c) **MW-4**, located south of Stormwater Runoff Impoundment #2.
d) **MW-5**, located approximately 490 feet southeast of Land Application Field A.
e) **MW-6**, located south of the Wastewater Storage Impoundment.

The well abandonment report shall be submitted to NMED within 60 days of completion of well plugging activities.

27. Within two years of the effective date of the Discharge Permit (**by DATE**), the permittee shall complete closure of the following impoundment in accordance with Subparagraph (C) of Paragraph (2) of Subsection A of 20.6.6.30 NMAC.
a) **Former Wastewater Impoundment** – located near the silage storage area.

## GENERAL REQUIREMENTS

28. The permittee shall operate in a manner such that standards and requirements of Sections 20.6.2.3101 and 20.6.2.3103 NMAC are not violated.

29. The permittee shall retain required records for a minimum period of 10 years from the date of sample collection, measurement, report or application in accordance with Section 20.6.6.33 NMAC.

30. Transfer of a Discharge Permit for a dairy facility shall be completed in accordance with Section 20.6.6.34 NMAC.

31. To renew this Discharge Permit, the permittee shall submit an application for renewal, renewal and modification, or renewal for closure at least one year prior to the expiration date of the Discharge Permit in accordance with Section 20.6.6.10 NMAC.

32. In accordance with Subsection A of 20.6.6.9 NMAC, the permittee shall remit a permit fee payment equal to one-tenth of the applicable permit fee from Table 1 of Section 20.6.2.3114 NMAC on the first occurrence of August 1 after the effective date of the Discharge Permit, and annually thereafter until expiration or termination of the Discharge Permit.

## V. ADDITIONAL CONDITIONS

In addition to the requirements of 20.6.6 NMAC, the permittee shall comply with the following conditions as authorized by Subsection H of 20.6.6.10 NMAC pursuant to Section 74-6-5 WQA. A hearing may be requested on additional conditions in accordance with Section 20.6.6.15 NMAC.

1. Within two years of the effective date of the Discharge Permit (by DATE), the permittee shall complete closure of the former sump at Parlor 1, also known as the buried rail cart tank using the following closure measures:
    a) Remove all lines leading to and from the closed tank or permanently plug them and abandon them in place.
    b) Any wastewater and solids shall be pumped or removed from the tank and shall be applied to the designated land application area as authorized by this Discharge Permit.
    c) Remove or demolish the closed tank, and re-grade the area with suitable fill to blend with surface topography to promote positive drainage and to prevent ponding.

## VI. PERMIT ISSUANCE

Pursuant to WQA 74-6-5(I), the term of this Discharge Permit shall be for the fixed term of five years from the effective date of the Discharge Permit.

Issued by: New Mexico Environment Department

Effective Date: **[DATE]**
Expiration Date: **[DATE]**

JERRY SCHOEPPNER
Chief, Ground Water Quality Bureau
New Mexico Environment Department